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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,730	06/23/2003	Todd F. Pfeifer	MSFT-1743/303844.1	8726
41505 7590 02/20/2008 WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) CIRA CENTRE, 12TH FLOOR 2929 ARCH STREET PHILADELPHIA, PA 19104-2891			EXAMINER DARNO, PATRICK A	
			ART UNIT 2163	PAPER NUMBER
			MAIL DATE 02/20/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/601,730

Applicant(s)

PFLEIGER ET AL.

Examiner

PATRICK A. DARNO

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06/23/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. No new claims have been added. No claims have been cancelled. Claims 1, 10, and 11 have been amended. Claims 1-16 are pending in this office action.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 10-16 are rejected under 35 U.S.C. 101 because the claimed invention appears to be directed to non-statutory subject matter.

With respect to claim 10, the claim recites a system. However, based upon the claim language set forth in the claim 10, it is unclear whether the system is actually limited to any physical article or objects. It appears that the Applicant's may be seeking to patent the particular programmed functionality of components, rather than the components themselves. Specifically the limitations of "two or more serially cascaded analysis engines...", "two or more serially cascaded execution engines...", "...wherein two or more analysis engines operate...", "at least one of the two or more analysis engines rewrites...", "and the two or more execution engines sequentially process..." all appear to be directed to programmed functionality and not the components of an apparatus themselves. Therefore, the claim stands rejected under 35 U.S.C. 101.

With respect to claim 11, the claim is rejected under 35 U.S.C. 101 for being directed toward non-statutory subject matter. It appears that the computer readable media that is claimed by the Applicant is not limited to physical articles or objects, which are structurally and functionally interrelated to the program in such a manner that would enable to the program to act

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as a computer component and realized any functionality. In paragraph of [0025] of the Applicant's Specification, the Applicant states that the computer readable media for which the computer program of the invention can be embodied includes both 'computer storage media' and 'communications media'.

Communications media, carrier waves, transmission media, or the like are not held to be appropriate computer readable mediums under 35 U.S.C. 101 because they fail to satisfy the conditions set forth above. It is noted that in this instance, the Applicant's specification clearly distinguishes between media, which "store" versus communications media, which convey, contain, carry, or transfer the program. Therefore, an amendment to the claim 11, such that claim 28 recites 'A computer-readable storage media storing instructions...' would be favorably considered.

Claims 12-16 are rejected under 35 U.S.C. 101 because the claims either contain or inherit the deficiencies of claim 11.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 and 6-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 5,873,080 issued to Anni Rosa Coden et al. (hereinafter "Coden") further in view

of U.S. Patent Number 6,795,832 issued to Vernon E. McGeorge, Jr., et al. (hereinafter "McGeorge").

Claims 1 and 11:

Regarding claims 1 and 11, Coden discloses a method of distributing portions of a query over two or more execution engines (Coden: Fig. 1 and Fig. 2 and column 3, lines 49-51), the method comprising:

receiving an input query into a first analysis engine of serially cascaded analysis engines (Coden: column 3, lines 40-43 and Fig. 1, 110, 130; The Coden reference contains a plurality of serially cascaded analysis engines. The serially cascading analysis engines being at the EUIS (Fig. 1, 120), the next analysis engine in the serial chain is the Query Interface (Fig. 1, 130), then any one of the customized APIs (text, parametric, image, etc. – Fig. , 152, 154, 156 respectively), and then the corresponding search engines (Fig. 1, 162, 164, 166). Note specifically that the input query is received into the serially cascading chain described above, and follows the serially cascading chain until the query reaches its appropriate destination.), each cascaded analysis engine serving to identify and extract portions of the input query to be compiled and executed on a particular execution engine serially cascaded with other search engines (Coden: Fig. 1, 110, 130 and column 5, lines 55-58 and column 6, lines 32-36; Note again that the EUI and query interface are serially cascaded. And note that both of the previously mentioned analysis engines identify and extract (analyzing and parsing) portions of the query to distribute to a particular search engine.);

identifying with the first analysis engine, a portion of the input query that can be processed by a first execution engine (Coden: column 3, lines 43-51 and column 6, lines 46-53);

compiling the identified portion of the input query forming a first compiled portion (Coden: column 3, lines 51-53);

rewriting the input query to form a first rewritten query wherein the identified portion of the input query is removed from the input query (Coden: column 6, lines 51-55 and column 7, lines 52-55 and column 3, lines 55-57);

passing an entire portion of the first written query to a second analysis engine of the serially cascaded analysis engines (Coden: column 6, lines 32-36 and column 3, lines 51-33 and column 57-58);

identifying with the second analysis engine, a portion of the first rewritten that can be processed by a second execution engine (Coden: column 3, lines 43-57); and

compiling the identified portion of the first rewritten query generating a second compiled portion wherein the input query is distributed over the first execution engine and the second execution engine for sequential execution (Coden: column 6, lines 51-55 and column 3, lines 49-53).

The Coden reference does not explicitly disclose wherein a first inserted placeholder replaces a portion of a query. However, Coden does explicitly suggest that a first analysis engine (Coden: Query Interface; Fig. 1 - 130) provides any formatting necessary to make a query object compatible with a second, serially cascaded, analysis engine (Coden: Search Engine API; Fig. 1 - 152, 154, or 156; See comments above describing the chain of serially cascaded analysis engines disclosed by Coden.) (Coden: column 6, lines 53 - 55).

However, McGeorge discloses wherein a first inserted placeholder replaces or is added to a portion of a query (McGeorge: column 4, line 57 – column 5, line 3; Inserting a placeholder into a query, as claimed by the Applicant, appears to simply be inserting a string into a query in order to replace an already existing portion of the original query. As can be seen by the cited portion of the reference, McGeorge clearly discloses inserting a string in place of an already existing portion of an original search query.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Coden with the teachings of McGeorge noted above for the purpose of inserting a string into a query in order to replace an already existing portion of the original query (*McGeorge: column 4, line 57 – column 5, line 3*). The skilled artisan would have been motivated to improve the teachings of Coden per the above such that a query can be modified by a predefined set of parameter strings at any point in time during a program (*McGeorge: column 5, lines 14-16*). This flexibility provides for a query which can be augmented or overridden during execution to more appropriately carry out a desired task (*McGeorge: column 5, lines 21-27*).

The previously mentioned combination fails to explicitly disclose wherein the sequential execution is performed using serially cascaded search engines. However, the Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to create a method wherein the sequential execution of search engines is performed using serially cascaded search engines. This is because it appears that the only difference between the prior art of record and the Applicant's claimed limitation is the arrangement, or alignment of the search engines. And, in *Sakraida v. AG Pro, Inc.*, the Court derived...that when a patent simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the combination is obvious. See MPEP 2141, Section I *The KSR Decision and Principles of the Law of Obviousness* and *Sakraida v. AG Pro, Inc.*

Therefore, it appears that claims 1 and 11 are rendered obvious over the combination of Coden and McGeorge.

Claim 2:

Regarding claim 2, the combination of Coden and McGeorge discloses all the elements of claim 1, as noted above, and Coden further discloses rewriting the first rewritten query to form a second rewritten query wherein the identified portion of the first rewritten query is removed from the first rewritten query (*Coden: column 11, line 65 - column 12, line 14*).

The Coden reference does not explicitly disclose wherein a second inserted placeholder replaces a portion of a query. However, Coden does explicitly suggest that a first analysis engine (*Coden: Query Interface; Fig. 1 - 130*) provides any formatting necessary to make a query object compatible with a second, serially cascaded, analysis engine (*Coden: Search Engine API; Fig. 1 - 152, 154, or 156; See comments above describing the chain of serially cascaded analysis engines disclosed by Coden.*) (*Coden: column 6, lines 53 - 55*).

However, McGeorge discloses wherein a second inserted placeholder replaces or is added to a portion of a query (*McGeorge: column 4, line 57 – column 5, line 3; Inserting a placeholder into a query, as claimed by the Applicant, appears to simply be inserting a string into a query in order to replace an already existing portion of the original query. As can be seen by the cited portion of the reference, McGeorge clearly discloses inserting a string in place of an already existing portion of an original search query.*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Coden with the teachings of McGeorge noted above for the purpose of inserting a string into a query in order to replace an already existing portion of the original query (*McGeorge: column 4, line 57 – column 5, line 3*). The skilled artisan would have been motivated to improve the teachings of Coden per the above such that a query can be modified by a predefined set of parameter strings at any point in time during a program (*McGeorge: column 5,*

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lines 14-16). This flexibility provides for a query which can be augmented or overridden during execution to more appropriately carry out a desired task (McGeorge: column 5, lines 21-27).

Claim 3:

Regarding claim 3, the combination of Coden and McGeorge discloses all the elements of claim 1, as noted above, and Coden further discloses wherein the rewriting act further comprises wrapping the second compiled portion into the first compiled portion of the input query to produce a nested query for sequential execution (Coden: column 9, lines 11-28).

Claims 4 and 14:

Regarding claims 4 and 14, the combination of Coden and McGeorge discloses all the elements of claim 1, as noted above, and Coden further discloses wherein the first compiled portion and the second compiled portion may be executed over different data sources (Coden: column 7, lines 5-13).

Claims 6 and 12:

Regarding claims 6 and 12, the combination of Coden and McGeorge discloses all the elements of claim 1, as noted above, and Coden further discloses:

executing partially the second compiled portion using the second execution engine forming the combination of second interim results and the first placeholder (Coden: column 3, lines 34-49 and column 2, lines 39-44);

generating a call from the second execution engine to the first execution engine requesting the data corresponding to the first placeholder (Coden: column 7, lines 8-20 and column 2, lines 39 - 44);

executing the first compiled portion using the first execution engine to form first interim results corresponding to the first placeholder and satisfying the call (Codex: column 8, lines 23-41);

providing the first interim results to the second execution engine (Codex: column 8, lines 46-62);

substituting the first interim results for the first placeholder forming the combination of second interim results and first interim results comprising combined input query results (Codex: column 11, lines 51 - 67 and column 12, line 3-14 and column 10, lines 20-24).

Claims 7, 9, and 13:

Regarding claims 7, 9, and 13, the combination of Codex in view of Neal teaches wherein the first execution engine and the second execution engine operate on queries comprising different data models (Codex: column 12, lines 17-25).

Claims 8 and 15:

Regarding claims 8 and 15, the combination of Codex in view of Neal teaches executing partially the first compiled portion using the first execution engine forming first interim results (Codex: column 3, lines 34-49 and column 2, lines 39-44);

generating a call from the first execution engine to the second execution engine requesting the data corresponding to an unidentified portion of the input query (Codex: column 7, lines 8-20 and column 2, lines 39 - 44);

executing the second compiled portion using the second execution engine to form second interim results and satisfying the call (Codex: column 8, lines 23-41);

providing the second interim results to the first execution engine (Codex: column 8, lines 46-62); and

combining the first interim results with the second interim results to form combined input query results (*Coden: Fig. 7, all features and column 12, lines 15 - 17*).

Claim 10:

Claim 10 is rejected under the same reasons set forth in the rejection of claim 1. In addition to the portions cited in the rejection of claim 1 above, the Examiner also directs the Applicant to *Coden: column 7, lines 6-8 and column 7, lines 33-38 and column 11, lines 27-32 and column 15, lines 55-60 and column 9, lines 11-18*.

4. Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Coden* in view of *McGeorge* and further in view of U.S. Patent Number 6,697,799 issued to Michael Renn Neal et. al (hereinafter "Neal").

Claims 5 and 16:

Regarding claims 5 and 16, the combination of *Coden* and *McGeorge* discloses all the elements of claim 1, as noted above, and *Coden* further discloses wherein a first analysis engine is at least a structure query language based engine (*Coden: column 6, lines 11-13*) and a second analysis engine (*Coden: See rejection of claim one which specifically points out numerous serially cascaded analysis engines.*).

Coden does not explicitly disclose an extensible markup language based engine. However, in addition to a list of predefined included engines, the *Coden* reference specifically suggests that other types of engines can be included (*Coden: column 6, lines 7-8*).

However, Neal discloses an extensible markup language based engine (*Neal: column 3, lines 64-66*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the previously mentioned combination with the teachings of Neal noted above because the references are analogous art with respect to search queries. The skilled artisan would have been motivated to improve the previously mentioned combination per the above in order to create a more efficient way of searching, navigating, and manipulating, and exchanging data.

Response to Arguments

Examiner Notes:

Due to the introduction of a new grounds of rejection under 35 U.S.C. 101, this office action is made non-final.

Applicant Argues:

Applicant respectfully submits that Coden fails to teach serially cascaded search engines as in Claim 1 and Figure 3 of the pending application.

Examiner Responds:

Examiner is not persuaded. As acknowledged above, it appears that the combination of Coden and McGeorge fails to explicitly disclose wherein the sequential execution is performed using serially cascaded search engines. However, the Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to create a method wherein the sequential execution of search engines is performed using serially cascaded search engines. This is because it appears that the only difference between the prior art of record and the Applicant's claimed limitation is the arrangement, or alignment of the search engines.

The courts have been clear that an invention is not novel and unobvious simply by arranging old elements in a different manner. Specifically, in *Sakraida v. AG Pro, Inc.*, the Court derived...that when a patent simply arranges old elements with each element performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the combination is obvious. See MPEP 2141, Section I *The KSR Decision and Principles of the Law of Obviousness* and *Sakraida v. AG Pro, Inc.*

Since the arguments above set forth by the Applicant simply appear to be directed to the mere difference in arrangement of search engines, as opposed to a functionality difference between the prior art search engines and the claimed search engines, it appears that this particular claim limitation is rendered obvious over the prior art of record. And since there is no suggestion or evidence presented that the new arrangement of search engines "yields more than one would expect from such an arrangement", the claim limitation is rendered obvious over the prior art of record.

Therefore, the claims remain rejected under the reasons set forth in the preceding office action.

Applicant Argues:

The "analysis" engines of Coden are not serially cascaded such that each cascaded analysis engine serves to identify and extract portions of the input query to be compiled and executed on a particular execution engine...

Thus, Applicant submits that Coden does not teach receiving an input query into a first analysis engine of serially cascaded analysis engines, where each cascaded analysis engine serves to identify and extract portions of the input query to be compiled and executed on a particular execution engine serially cascaded with other search engines as recited in amended claim 1.

Examiner Responds:

Examiner is not persuaded. Coden discloses receiving an input query into a first analysis engine (*Coden: Fig. 1, 110*) of serially cascaded analysis engines (*Coden: Fig. 1, 110 and 130 are serially cascaded*), where each cascaded analysis engine serves to identify and extract portions of the input query (*Coden: column 5, lines 55-58 and column 6, lines 32-36; Note that the analysis engines identify and extract (analyze and parse) portions of the query to be executed on a particular search engine.*) to be compiled and executed on a particular execution engine serially cascaded with other search engines (*Coden: column 6, lines 46-51*).

Since it appears that each and every element of the Applicant's claim is either disclosed or suggested by the prior art of record, the claims remain rejected under the reasons set forth in the preceding office action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick A. Darno whose telephone number is (571) 272-0788. The examiner can normally be reached on Monday - Friday, 9:00 am - 5:30 pm.

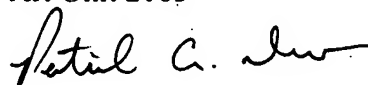
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patrick A. Darno
Examiner
Art Unit 2163



PAD



WILSON LEE
PRIMARY EXAMINER